

P.B.5818 - Patentlaan 2 2280 HV Rijswijk (ZH) **2** (070) 3 40 20 40 FAX (070) 3 40 30 16

Europäisches **Patentamt**

European **Patent Office** Office européen des brevets

Generaldirektion 1

Directorate General 1

Direction générale 1

Hutchins, Michael Richard M.R. Hutchins & Co, 23 Mount Sion Tunbridge Wells, Kent TN1 1TZ **GRANDE BRETAGNE**



EPO Customer Services

Tel.: +31 (0)70 340 45 00

Date 06.09.06

Reference AST20 (EP) Application No./Patent No.

04806258.2 - 2101 PCT/GB2004005464

Applicant/Proprietor

Astex Therapeutics Limited, et al

Notification of European publication number and information on the application of Article 67(3) EPC

The provisional protection under Article 67(1) and (2) EPC in the individual contracting states becomes effective only when the conditions referred to in Article 67(3) EPC have been fulfilled (for further details, see information brochure of the European Patent Office "National Law relating to the EPC" and additional information in the Official Journal of the European Patent Office).

A request has been made for extension of the patent to: AL BA HR LV MK YU See Official Journal 1-2/1994 for further information on provisional protection.

Pursuant to Article 158(1) EPC the publication under Article 21 PCT of an international application for which the European Patent Office is a designated Office takes the place of the publication of a European patent application.

The bibliographic data of the above-mentioned Euro-PCT application will be published on 04.10.06 in Section I.1 of the European Patent Bulletin. The European publication number is 1706385.

In all future communications to the European Patent Office, please quote the application number plus Directorate number.

Receiving Section





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Hutchins, Michael Richard M.R. Hutchins & Co, 23 Mount Sion Tunbridge Wells, Kent TN1 1TZ GRANDE BRETAGNE



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Tel.: +31 (0)70 340 45 00

Date 09-08-2006

Reference AST20 (EP)	Application No./Patent No. 04806258.2 - 2101 PCT/GB2004005464
Applicant/Proprietor Astex Therapeutics Limited, et al	

Communication pursuant to Rules 109 and 110 EPC

(1) Amendment of application documents, especially the claims (R. 109 EPC)

The above mentioned international (Euro-PCT) application has entered the European phase, or can do so, once the necessary conditions are fulfilled.

Under Articles 28, 41 PCT, Rules 52, 78 PCT and Rule 86(2) to (4) EPC, the applicant may amend the application documents after receiving the international search report.

Whether or not he has already done so, he now has a further opportunity to file amended claims or other application documents within a non-extendable time limit of one month after notification of the present communication (R. 109 EPC).

The claims applicable on expiry of the above time limit, i.e. those filed on entry into the European phase or in response to the present communication, will form the basis for the calculation of any claims fee to be paid (see page 2) and for any supplementary search to be carried out under Article 157(2) EPC (R. 109 EPC).



(2) Claims fees under Rule 110 EPC

Date

If the application documents on which the European grant procedure is to be based comprise more than ten claims, a claims fee shall be payable for the eleventh and each subsequent claim within the period provided for in Rule 107(1) EPC.

	Based on the application documents currently on file, all necessary claims fees have already been paid (or the documents do not comprise more than 10 claims).
₩	All necessary fees will be/have been debited automatically according to the automatic debit order.
	The claims fees due for the claims to were not paid within the above-mentioned period.

Any non-paid claims fee, either based on the current set of claims or on any amended claims to be filed pursuant to Rule 109 EPC (see page 1), may still be validly paid within a non-extendable period of grace of one month after notification of this communication.

If a payment is made for only some of the claims, it must be indicated for which claims it is intended. If a claims fee is not paid in due time, the claim concerned is deemed to be abandoned (R. 110(4) EPC).

If claims fees have already been paid, but on expiry of the above-mentioned time limit there is a new set of claims containing fewer fee-incurring claims than previously, the claims fees in excess of those due under Rule 110(2), 2nd sentence, EPC will be refunded (R. 110(3) EPC).

You are reminded that any supplementary search under Article 157(2) EPC will relate only to the last set of claims applicable on expiry of the above time limit AND will be confined to those fee-incurring claims for which fees have been paid in due time.

The fee for the eleventh and each subsequent claim is EUR 45,00.

Receiving Section





To the European Patent Office

EPO - Munich 37

Eintritt in die europäische Phase (EPA als Bestimmungsamt oder ausgewähltes Amt)

Entry into the ^{26.} Juli 2006 European phase (EPO as designated or elected Office)

Entrée dans la phase européenne (l'OEB agissant en qualité d'office désigné ou élu)

			,			- child designe od eld/		
ត	Europäische Anmeldenummer oder, falls nicht bekannt, PCT-Aktenzeichen oder PCT-Veröffentlichungsnummer			European application number, or, if not known, PCT application or publication number		Numéro de dépôt de la demande de brevet européen ou, à défaut, numéro de dépôt PCT ou de publication PCT		
V	WO 2005/061463 Zeichen des Anmelders oder Vertreters (max. 15 Positionen)		04	306258.2	1	PCT/GB2004/005464 Référence du demandeur ou du mandataire (15 caractères ou espaces au maximum)		
				elicant's or representative's reference. x. 15 spaces)				
		•	AS	T20 (EP)				
⊠ ¹	1.	Anmelder Die Angaben über den (die) Anmelder sind in der internationalen Veröffentlichung enthalten oder vom Internationalen Büro nach der internationalen Veröffentlichung vermerkt worden.	1.	Applicant Indications concerning the applicant(s) are contained in the international publication or recorde by the International Bureau after thinternational publication.		Demandeur Les indications concernant le(s) demandeur(s) figurent dans la publication internationale ou ont été enregistrées par le Bureau international après la publication internationale.		
		Änderungen, die das Internationale Büro noch nicht vermerkt hat, sind auf einem Zusatzblatt angegeben. Zustellanschrift (siehe Merkblatt II, 1)		Changes which have not yet been recorded by the International Bure are set out on an additional sheet. Address for correspondence (see Notes II, 1)		Les changements qui n'ont pas encore été enregistrés par le Bureau international sont indiqués sur une feuille additionnelle. Adresse pour la correspondance (voir notice II, 1)		
2	2.	Vertreter	2.	Representative	2	Mandataire		
		Name (Nur einen Vertreter angeben, der in das europäische Patentregister eingetragen und an den zugestellt wird)		Name (Name only one representative who will be listed in the Register of European Patents to whom notification will be made	and	Nom (N'indiquer qu' un seul mandataire, qui sera inscrit au Registre européen des brevets et auquel signification sera faite)		
		Geschäftsanschrift	N 2	lutchins, Dr Michael Richard Address of place of business 1. R. Hutchins & Co. 3 Mount Sion, Tunbridge Wells, Ken N1 1TZ, United Kingdom	t	Adresse professionnelle		
		Telefon	4	Telephone 44 1892 539659		Téléphone		
		Telefax Telex	+	Fax Telex 14 1892 528720		Téléfax Télex		
	_	Weitere(r) Vertreter auf Zusatzblatt		Additional representative(s) on additional sheet		Autre(s) mandataire(s) sur une feuille additionnelle		
3.	. .	Vollmacht	3.	Authorisation	3.	Pouvoir		
		Einzelvollmacht ist beigefügt.		Individual authorisation is attached		Un pouvoir spécial est joint.		
		Allgemeine Vollmacht ist registriert unter Nummer:		General authorisation has been registered under No:		Un pouvoir général a été enregistré sous le n° :		
		Allgemeine Vollmacht ist eingereicht, aber noch nicht registriert.		A general authorisation has been filed, but not yet registered.		Un pouvoir général a été déposé, mais n'est pas encore enregistré.		
		Die beim EPA als PCT-Anmeldeamt eingereichte Vollmacht schließt ausdrücklich die europäische Phase ein.		The authorisation filed with the EP as PCT receiving Office expressly includes the European phase.	0	Le pouvoir général déposé à l'OEB agissant en qualité d'office récepteur au titre du PCT s'applique expressément à la phase européenne.		

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Prüfungsantrag
Hiermit wird die Prüfung der Anmeldung gemäß Art. 94 EPU beantragt.
Die Prüfungsgebühr wird (wurde) entrichtet.

Prüfungsantrag in einer zugelassenen Nichtamtssprache (siehe Merkblatt III, 5.2):

4. Request for examination
Examination of the application under
Art. 94 EPC is hereby requested.
The examination fee is being (has been, will be) paid.

Request for examination in an admissible non-EPO language (see Notes III, 5.2):

Requête en examen
Il est demandé que soit examinée
la demande de brevet conformément
à l'art. 94 CBE. Il est (a été, sera)
procédé au paiement de la taxe
d'examen.

Requête en examen dans une langue non officielle autorisée (voir notice III, 5.2):

X

Abschriften
Zusätzliche Abschrift(en) der im ergänzenden europäischen Recherchenbericht angeführten Schriftstücke wird (werden) beantragt.

Anzahl der zusätzlichen Sätze von Abschriften

5. Copies
Additional copy (copies) of the documents cited in the supplementary European search report is (are) requested.

Number of additional sets of copies

Copies
 Prière de fournir une ou plusieurs copies supplémentaires des documents cités dans le rapport

complémentaire de recherche européenne.

Nombre de jeux supptémentaires de copies

2

- 6. Für das Verfahren vor dem EPA bestimmte Unterlagen
- 6.1 Dem Verfahren vor dem EPA als Bestimmungsamt (PCT I) sind folgende Unterlagen zugrunde zu legen:

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die vom Internationalen Büro veröffentlichten Anmeldungsunterlagen (mit allen Ansprüchen, Beschreibung und Zeichnungen), gegebenenfalls mit den geänderten Ansprüchen nach Art. 19 PCT

X

soweit sie nicht ersetzt werden durch die beigefügten Anderungen.

Falls nötig, sind Klarstellungen auf einem Zusatzblatt einzureichen!

6.2 Dem Verfahren vor dem EPA als ausgewähltem Amt (PCT II) sind folgende Unterlagen zugrunde zu legen:

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die dem Internationalen vorläufigen Prüfungsbericht zugrunde gelegten Unterlagen, einschließlich seiner eventuellen Anlagen (Solche Anlagen müssen immer beigefügt werden)

soweit sie nicht ersetzt werden durch die beigefügten Änderungen.

Falls nötig, sind Klarstellungen auf einem Zusatzblatt einzureichen!

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Sind dem EPA als mit der internationalen vorläufigen Prüfung beauftragten Behörde Versuchsberichte zugegangen, dürfen diese dem Verfahren vor dem EPA zugrunde gelegt werden. 6. Documents intended for proceedings before the EPO

6.1 Proceedings before the EPO as designated Office (PCT I) are to be based on the following documents:

the application documents published by the International Bureau (with all claims, description and drawings), where applicable with amended claims under Art. 19 PCT

unless replaced by the amendments enclosed.

Where necessary, clarifications must be submitted on a separate sheet!

6.2 Proceedings before the EPO as elected Office (PCT II) are to be based on the following documents:

the documents on which the international preliminary examination report is based, including its possible annexes (Such annexes must always be filed)

unless replaced by the amendments enclosed.

Where necessary, clarifications must be submitted on a separate sheet!

If the EPO as International Preliminary Examining Authority has received test reports, these may be used as the basis of proceedings before the EPO.

3. Pièces destinées à la procédure devant l'OEB

6.1 La procédure devant l'OEB agissant en qualité d'office désigné (PCT I) doit se fonder sur les pièces suivantes :

les pièces de la demande publiée par le Bureau international (avec toutes les revendications, la description et les dessins), éventuellement avec les revendications modifiées conformément à l'article 19 du PCT

dans la mesure où elles ne sont pas remplacées par les modifications jointes.

Le cas échéant, des explications doivent être jointes sur une feuille additionnelle!

6.2 La procédure devant l'OEB agissant en qualité d'office élu (PCT II) doit se fonder sur les pièces suivantes :

les pièces sur lesquelles se fonde le rapport d'examen préliminaire international, y compris ses annexes éventuelles (De telles annexes sont toujours à joindre)

dans la mesure où elles ne sont pas remplacées par les **modifications** jointes.

Le cas échéant, des explications doivent être jointes sur une feuille additionnelle!

Si l'OEB, agissant en qualité d'administration chargée de l'examen préliminaire international, a reçu des rapports d'essais, ceux-ci peuvent constituer la base de la procédure devant l'OEB.

7. Übersetzungen Beigefügt sind die nachfolgend angekreuzten Übersetzungen in einer der Amtssprachen des EPA (Deutsch, Englisch, Französisch): Im Verfahren vor dem EPA als Bestimmungsamt oder ausgewähltem Amt (PCT I + II): Ubersetzung der ursprünglich eingereichten internationalen Anmeldung (Beschreibung, Ansprüche, etwaige Textbestandteile in den Zeichnungen), der veröffentlichten Zusammenfassung, und etwaiger Angaben über biologisches Material nach Regel 13th 3 und 13²³.4 PCT Ubersetzung der prioritätsbegründenden Anmeldung(en) Es wird hiermit erklärt, daß die internationale Anmeldung in ihrer ursprünglich eingereichten Fassung eine vollständige Ubersetzung der früheren Anmeldung ist (Regel 38(5) EPU) Zusätzlich im Verfahren vor dem EPA als Bestimmungsamt (PCT I): Ubersetzung der nach Art. 19 PCT geänderten Ansprüche nebst Erklärung, falls diese dem Verfahren vor dem EPA zugrunde gelegt werden sollen (siehe Feld 6) Zusätzlich im Verfahren vor dem EPA als ausgewähltem Amt (PCT II): Übersetzung der Anlagen zum internationalen vorläufigen Prüfungsbericht **Biologisches Material** Die Erfindung bezieht sich auf bzw. verwendet biologisches Material, das nach Regel 28 EPÜ hinterlegt worden ist. Die Angaben nach Regel 28(1)c) EPÜ (falls noch nicht bekannt, die Hinterlegungsstelle und das (die) Bezugszeichen (Nummer, Symbole usw.) des Hinterlegers) sind in der internationalen Veröffentlichung oder in der gemäß Feld 7 eingereichten Übersetzung enthalten auf: Seite(n) / Zeile(n) Die Empfangsbescheinigung(en) der Hinterlegungsstelle ist (sind) beigefügt wird (werden) nachgereicht Verzicht auf die Verpflichtung des Antragstellers nach Regel 28(3) EPÜ auf gesondertem Schriftstück

7. Translations

Translations in one of the official languages of the EPO (English, French, German) are enclosed as crossed below:

• In proceedings before the EPO as designated or elected Office (PCT I + II):

Translation of the international application (description, claims, any text in the drawings) as originally filed, of the abstract as published and of any indication under Rule 13^{to}.3 and 13^{to}.4 PCT regarding biological material

Translation of the priority application(s)

It is hereby declared that the international application as originally filed is a complete translation of the previous application (Rule 38(5) EPC)

 In addition, in proceedings before the EPO as designated Office (PCT I):

Translation of amended claims and any statement under Art. 19 PCT, if the claims as amended are to form the basis for the proceedings before the EPO (see Section 6)

 In addition, in proceedings before the EPO as elected Office (PCT II):

Translation of any annexes to the international preliminary examination report

7. Traductions

Vous trouverez, ci-joint, les traductions cochées ci-après dans l'une des langues officielles de l'OEB (allemand, anglais, français):

 Dans la procédure devant l'OEB agissant en qualité d'office désigné ou élu (PCT I + II):

Traduction de la demande Internationale telle que déposée initialement (description, revendications, textes figurant éventuellement dans les dessins), de l'abrégé publié, et de toutes indications visées aux règles 13th.3 et 13th.4 du PCT concernant le matériel biologique

Traduction de la (des) demande(s) ouvrant le droit de priorité

Il est déclaré par la présente que la demande internationale telle que déposée initialement est une traduction intégrale de la demande antérieure (règle 38(5) CBE)

 De plus, dans la procédure devant l'OEB agissant en qualité d'office désigné (PCT I) :

Traduction des revendications modifiées et de la déclaration faite conformément à l'article 19 du PCT, si la procédure devant l'OEB doit être fondée sur les revendications modifiées (voir la rubrique 6)

 De plus, dans la procédure devant l'OEB agissant en qualité d'office élu (PCT II):

Traduction des annexes du rapport d'examen préliminaire international

8. Biological material

The invention relates to and/or uses biological material deposited under Rule 28 EPC.

The particulars referred to in Rule 28(1)(c) EPC (if not yet known, the depository institution and the identification reference(s) (number, symbols etc.) of the depositor) are given in the international publication or in the translation submitted under Section 7 on:

page(s) / line(s)

I. Matière biologique

L'invention concerne et/ou utilise de la matière biologique, déposée conformément à la règle 28 CBE.

Les indications visées à la règle 28(1)c) CBE (si non encore connues, l'autorité de dépôt et la (les) référence(s) d'identification (numéro ou symboles etc.) du déposant) figurent dans la publication internationale ou dans une traduction produite conformément à la rubrique 7 à la / aux:

page(s) / ligne(s)

The receipt(s) of deposit issued by the depositary institution

is (are) enclosed

will be filed at a later date

Waiver of the right to an undertaking from the requester pursuant to Rule 28(3) EPC attached.

Le(s) récépissé(s) de dépôt délivré(s) par l'autorité de dépôt

est (sont) joint(s)

sera (seront) produit(s) ultérieurement

Renonciation, sur document distinct, à l'engagement du requérant au titre de la règle 28(3) CBE.

	9.	Nucleotid- und Aminosäure- sequenzen Die nach Regeln 5.2 und 13 th PCT sowie Regel 111(3) EPÜ erforderli- chen Unterlagen liegen dem EPA bereits vor.	9.	Nucleotide and amino acid sequences The items necessary in accordance with Rules 5.2 and 13th PCT and Rule 111(3) EPC have already been furnished to the EPO.	9.	Séquences de nucléotides et d'acides aminés Les pièces requises selon les règles 5.2 et 13 th PCT et la règle 111(3) CBE ont déjà été déposées auprès de l'OEB.
		Das schriftliche Sequenzprotokoll wird anliegend nachgereicht.		The written sequence listing is furnished herewith.		La liste de séquences écrite est produite ci-joint.
		Das Sequenzprotokoll geht nicht über den Inhalt der Anmeldung in der ursprünglich eingereichten Fassung hinaus.		The sequence listing does not include matter which goes beyond the content of the application as filed.		La liste de séquences ne contient pas d'éléments s'étendant au-delà du contenu de la demande telle qu'elle a été déposée.
	•	Der vorgeschriebene Datenträger ist beigefügt.		The prescribed data carrier is enclosed.		Le support de données prescrit est joint.
,		Die auf dem Datenträger gespei- cherte Information stimmt mit dem schriftlichen Sequenzprotokoll überein.		The information recorded on the data carrier is identical to the written sequence listing.		L'information figurant sur le support de données est identique à celle que contient la liste de séquences écrite.
	10.	Benennungsgebühren	10.	Designation fees	10.	Taxes de désignation
	10.1	Es ist derzeit beabsichtigt, den sie- benfachen Betrag einer Benennungs- gebühr zu entrichten. Damit gelten die Benennungsgebühren für alle Vertragsstaaten des EPܹ als ent- richtet (Art. 2 Nr. 3 GebO), soweit sie in der internationalen Anmeldung bestimmt sind².	10.1	It is currently intended to pay seven times the amount of the designation fee. The designation fees for all the EPC contracting states designated in the international application are thereby deemed to have been paid (Art. 2 No. 3 RFees).	10.	Il est actuellement envisagé de payer un montant correspondant à sept fois la taxe de désignation. Les taxes de désignation sont ainsi réputées payées pour tous les Etats contractants de la CBE¹ désignés dans la demande internationale² (art. 2, point 3 du RRT).
	10.2	Abweichend von der Erklärung in Nr. 10.1 ist derzeit beabsichtigt, weniger als sleben Benennungsgebühren für folgende in der internationalen Anmeldung bestimmte Vertragsstaaten des EPÜ ² zu entrichten:	10.2	The declaration in No. 10.1 does not apply. Instead, it is currently intended to pay fewer than seven designation fees for the following EPC contracting states? designated in the international application:	10.2	Contrairement à ce qui est indiqué au n° 10.1, il est actuellement envisagé de payer moins de sept taxes de désignation pour les Etats contractants de la CBE² suivants désignés dans la demande internationale :
m []		(4)		
(2)				(5)		
(3)	1		•	(6)		
		Soweit unter Nr. 10.2 Vertragsstaaten aufgeführt sind, wird beantragt, für die dort nicht aufgeführten Vertragsstaaten von der Zustellung einer Mitteilung nach Regel 108(3) EPÜ abzusehen.		If contracting states are indicated under No. 10.2, it is requested that no communication under Rule 108(3) EPC be issued for contracting states not thus indicated.		Si des Etats contractants sont mentionnés au n° 10.2, prière de ne pas procéder à la signification d'une notification prévue par la règle 108(3) CBE pour les Etats contractants n'y étant pas mentionnés.
	10.3	Wird ein automatischer Abbuchungsauftrag erteilt (Feld 12), so wird das EPA beauftragt, bei Ab- lauf der Grundfrist nach Regel 107 (1)d) EPÜ den siebenfachen Betrag einer Benennungsgebühr abzubuchen. Ist eine Erklärung nach Nr. 10.2 abgegeben worden, so sollen die Benennungsgebühren nur für die dort angegebenen Vertragsstaaten abgebucht werden, sofern dem EPA nicht bis zum Ablauf der Grundfrist ein anderslautender Auftrag zugeht.	10.3	If an automatic debit order has been issued (Section 12), the EPO is authorised, on expiry of the basic period under Rule 107(1)(d) EPC, to debit seven times the amount of the designation fee. If states are indicated under No. 10.2, the EPO will debit designation fees only for those states, unless instructed otherwise before the basic period expires.	10.3	Si un ordre de prélèvement automatique est donné (rubrique 12), il est demandé à l'OEB de prélever, à l'expiration du délai normal visé à la règle 107(1)d) CBE, un montant correspondant à sept fois la taxe de désignation. Si une déclaration a été faite au n° 10.2, les taxes de désignation ne sont à prélever que pour les Etats contractants qui y sont indiqués, sauf instruction contraire reçue par l'OEB avant l'expiration du délai normal.

¹ Stand bei Drucklagung: 27 Vertragsstaaten, und zwar: / Status when this form was printed: 27 contracting states, namely / Situation à la date d'impression : 27 Etats contractants, à savoir : AT Österreich / Austria / Autriche, BE Belgien / Belgium / Belgique, BG Bulgarien / Bulgaria / Bulgarie, CH / U Schweiz und Uechtenstein / Switzerland and Liechtenstein / Suisse et Liechtenstein, CY Zypern / Cyprus / Chypre. CZ Tschechische Republik / Czech Republic / République tchèque, DE Deutschland / Germany / Allemagne, DK Dänemark / Denmark / Oanemark, EE Estland / Estonia / Estonia / Estonia / Estonia / Estonia / Spain / Espagne, FI Finnland / Finland / Finlande, FR Frankreich / France / France, GB Vereinigtes Königreich / United Kingdom / Royaume-Uni, GR Griechenland / Greece / Grèce, HU Ungam / Hungary / Hongrie, IE Irland / Irlande, IT Italien / Italy / Italie, LU Luxemburg / Luxembourg, MC Monaco / Monaco / Monaco, NL Niederlande / Netherlands / Pays-Bas, PT Portugal / Portugal / Portugal, RO Rumānien / Romania / Roumanie, SE Schweden / Sweden / Suade, SI Slowenien / Slovenia / Slove

² Für folgende Staaten nur möglich, falls in der internationalen Anmeldung am oder nach folgendem Tag bestimmt: Slowakische Republik, Bulgarien, Tschechische Republik und Estland: 1. Juli 2002, Slowenien: 1. Dezember 2002, Ungarn: 1. Januar 2003 und Rumänien: 1. März 2003. / For the following states this is possible only if they are designated in the international application on or after the stated date: Slovak Republic, Bulgaria, Czech Republic and Estonia: 1 July 2002, Slovenia: 1 December 2002, Hungary: 1 January 2003 and Romania: 1 March 2003. / En ce qui concerne les Etats suivants seulement si la désignation a été effectuée dans la demande internationale à la date suivante ou à une date ultérieure: République slovaque, Bulgarie, République tchèque et Estonia: 1º juillet 2002, Slovenia: 1º décembre 2002, Hongrie: 1º janvier 2003 et Roumanie: 1º mars 2003.

X Erstreckung des europäischen **Patents** Bei Zahlung der Erstreckungsgebühr(en) gilt diese Anmeldung auch als wirksamer Erstreckungsantrag für die in der internationalen Anmeldung bestimmten »Erstreckungsstaaten«, Es ist beabsichtigt, diese Gebühr(en) für folgende Staaten zu entrichten: SI Slowenien 13 XXXX LT Litauen LV Lettland AL Albanien RO Rumänien 13 X MK Ehemalige jugoslawische Republik Mazedonien 28 février 2003 (Roumanie).

Extension of the European patent

On payment of the extension fee(s) this application is also deemed to be a request for extension to all the "extension states" designated in the international application. It is intended to pay the fee(s) for the following states:

Slovenia 13 Lithuania Latvia Albania Romania "

Former Yugoslav Republic

of Macedonia

Extension des effets du brevet européen

La taxe (Les taxes) d'extension payée(s), la présente demande est également réputée être une demande d'extension à tous les «Etats autorisant l'extension» désignés dans la demande internationale. Il est envisagé de payer la taxe (les taxes) d'extension pour les Etats suivants:

Slovénie 13 Lituanie Lettonie **Albanie** Roumanie 1) Ex-République yougostave de Macédoine

Für Slowenien und Rumänien nur möglich, falls in der internationalen Anmeldung bis 30. November 2002 (Slowenien) oder bis 28. Februar 2003 (Rumänlen) bestimmt. / For Slovenia and Romania this is possible only if they are designated in the international application up to 30 November 2002 (Slovenia) or 28 February 2003 (Romania). En ce qui concerne la Slovénie et la Roumanie, seulement si la désignation a été effectuée dans la demande internationale jusqu'au 30 novembre 2002 (Slovénie) ou jusqu'au

Platz für Staaten, mit denen «Erstreckungsabkommen» nach Orucklegung dieses Formblatts in Kraft treten und die in der internationalen Anmeldung bestimmt waren. / Space for States with which "extension agreements" enter into force after this form has been printed and which were designated in the international application. / Prévu pour des Etats à l'égard desquels des «accords d'extension» entreront en vigueur après l'impression du présent formulaire et qui ont été désignés dans la demande internationale.

12. Automatischer Abbuchungsauftrag (Nur möglich für Inhaber von beim EPA geführten laufenden Konten)

X

Das EPA wird beauftragt, nach Maßgabe der Vorschriften über das automatische Abbuchungsverfahren fällige Gebühren und Auslagen vorm untenstehenden laufenden Konto abzubuchen. In Bezug auf die Benennungsgebühren wird auf Feld 10.3 verwiesen. Das EPA wird ferner beauftragt, die Erstreckungsgebühren für jeden in Feld 11 angekreuzten »Erstreckungsstaat« bei Ablauf der Grundfrist zu ihrer Zahlung abzubuchen, sofern ihm nicht bis dahin ein anderslautender Auftrag zugeht.

Nummer und Kontoinhaber

12. Automatic debit order (for EPO deposit account holders

> The EPO is hereby authorised, under the Arrangements for the automatic debiting procedure, to debit from the deposit account below any fees and costs falling due. For designation fees, see Section 10.3. The EPO is also authorised, on expiry of the basic period for paying the extension fees. to debit those fees for each of the "extension states" marked with a cross in Section 11, unless instructed otherwise before the said

Number and account holder

28050421 M. R. Hutchins & Co.

12. Ordre de prélèvement automatique (uniquement possible pour les titulaires de comptes courants ouverts auprès de l'OEB)

Par la présente, il est demandé à l'OEB de prélever du compte courant ci-dessous les taxes et frais venant à échéance, conformément à la réglementation relative au prélèvement automatique. Pour les taxes de désignation, se reporter à la rubrique 10.3. Il est en outre demandé à l'OEB de prélever, à l'expiration du délai normal prévu pour leur paiement, les taxes d'extension pour chaque «Etat autorisant l'extension» coché à la rubrique 11, sauf instruction contraire reçue avant l'expiration de ce délai.

Numéro et titulaire du compte

X 13. Eventuelle Rückzahlungen auf das beim EPA geführte laufende Konto

Nummer und Kontoinhaber

13. Any reimbursement to EPO deposit account

28050421 M. R. Hutchins & Co.

Number and account holder

Remboursements éventuels à effectuer sur le compte courant ouvert auprès de l'OEB Numéro et titulaire du compte

14. Unterschrift(en) des (der) Anmelder(s) oder Vertreters 14. Signature(s) of applicant(s) or representative

Dr Michael R. Hutchins

14. Signature(s) du (des) demandeur(s) ou du mandataire

Ort / Datum

Für Angestellte (Art. 133(3) EPÜ) mit allgemeiner Vollmacht:

Nr.

Nameln) des (der) Unterzeichneten bitte in Druckschrift wiederhoten. Bei juristischen Personen bitte auch dia Stellung des (der) Unterzeichneten innerhalb der Gesellschaft in Druckschrift angeben, Place / Date Tunbridge Wells 23.7.2006

For employees (Art. 133(3) EPC) having a general authorisation:

No.

Please print name(s) under signature(s). In the case of legal persons, the position of the signatory within the company should also be printed.

Lieu / Date

Pour les employés (art. 133(3) CBE) disposant d'un pouvoir général :

Nº

Le ou les noms des signataires doivent être indiqués en caractères d'imprimeria. S'il s'agit d'una personne morale, la position occupée au sein de celle-ci par le ou les signataires doit également être indiquée en caractères d'imprimerie.

CLAIMS

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1. A compound of the formula (I):

or a salt, solvate, tautomer or N-oxide thereof;

wherein A is a saturated hydrocarbon linker group containing from 1 to 7 carbon atoms, the linker group having a maximum chain length of 5 atoms extending between R^1 and NR^2R^3 and a maximum chain length of 4 atoms extending between E and NR^2R^3 , wherein one of the carbon atoms in the linker group may optionally be replaced by an oxygen or nitrogen atom; and wherein the carbon atoms of the linker group A may optionally bear one or more substituents selected from oxo, fluorine and hydroxy, provided that the hydroxy group when present is not located at a carbon atom α with respect to the NR^2R^3 group and provided that the oxo group when present is located at a carbon atom α with respect to the NR^2R^3 group;

E is a monocyclic or bicyclic carbocyclic or heterocyclic group; R¹ is an aryl or heteroaryl group;

 R^2 and R^3 are independently selected from hydrogen, C_{1-4} hydrocarbyl and C_{1-4} acyl wherein the hydrocarbyl and acyl moieties are optionally substituted by one or more substituents selected from fluorine, hydroxy, amino, methylamino, dimethylamino and methoxy;

or R² and R³ together with the nitrogen atom to which they are attached form a cyclic group selected from an imidazole group and a saturated monocyclic

heterocyclic group having 4-7 ring members and optionally containing a second heteroatom ring member selected from O and N;

or one of R² and R³ together with the nitrogen atom to which they are attached and one or more atoms from the linker group A form a saturated monocyclic heterocyclic group having 4-7 ring members and optionally containing a second heteroatom ring member selected from O and N;

or NR²R³ and the carbon atom of linker group A to which it is attached together form a cyano group;

 R^4 is selected from hydrogen, halogen, C_{1-5} saturated hydrocarbyl, C_{1-5} saturated hydrocarbyloxy, cyano, and CF_3 ; and

R⁵ is selected from hydrogen, halogen, C₁₋₅ saturated hydrocarbyl, C₁₋₅ saturated hydrocarbyloxy, cyano, CONH₂, CONHR⁹, CF₃, NH₂, NHCOR⁹ or NHCONHR⁹;

 R^9 is a group R^{9a} or $(CH_2)R^{9a}$, wherein R^{9a} is a monocyclic or bicyclic group which may be carbocyclic or heterocyclic;

the carbocyclic group or heterocyclic group R^{9a} being optionally substituted by one or more substituents selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, mono- or di- C_{1-4} hydrocarbylamino; a group R^a - R^b wherein R^a is a bond, O, CO, $X^1C(X^2)$, $C(X^2)X^1$, $X^1C(X^2)X^1$, S, SO, SO₂, NR^c , SO₂ NR^c or NR^c SO₂; and R^b is selected from hydrogen, heterocyclic groups having from 3 to 12 ring members, and a C_{1-8} hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, carboxy, amino, mono- or di- C_{1-4} hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the C_{1-8} hydrocarbyl group may optionally be replaced by O, S, SO, SO₂, NR^c , $X^1C(X^2)$, $C(X^2)X^1$ or $X^1C(X^2)X^1$;

 R^c is selected from hydrogen and C_{1-4} hydrocarbyl; and X^1 is O, S or NR^c and X^2 is =O, =S or = NR^c .

30 2. A compound according to claim 1 of the formula (Ia):

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or a salt, solvate, tautomer or N-oxide thereof;

wherein A is a saturated hydrocarbon linker group containing from 1 to 7 carbon atoms, the linker group having a maximum chain length of 5 atoms extending between R^1 and NR^2R^3 and a maximum chain length of 4 atoms extending between E and NR^2R^3 , wherein one of the carbon atoms in the linker group may optionally be replaced by an oxygen or nitrogen atom; and wherein the carbon atoms of the linker group A may optionally bear one or more substituents selected from oxo, fluorine and hydroxy, provided that the hydroxy group when present is not located at a carbon atom α with respect to the NR^2R^3 group and provided that the oxo group when present is located at a carbon atom α with respect to the NR^2R^3 group;

E is a monocyclic or bicyclic carbocyclic or heterocyclic group; R¹ is an aryl or heteroaryl group;

 R^2 and R^3 are independently selected from hydrogen, $C_{1\!-\!4}$ hydrocarbyl and $C_{1\!-\!4}$ acyl;

or R² and R³ together with the nitrogen atom to which they are attached form a saturated monocyclic heterocyclic group having 4-7 ring members and optionally containing a second heteroatom ring member selected from O and N;

or one of R² and R³ together with the nitrogen atom to which they are attached and one or more atoms from the linker group A form a saturated monocyclic heterocyclic group having 4-7 ring members and optionally containing a second heteroatom ring member selected from O and N;

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or NR²R³ and the carbon atom of linker group A to which it is attached together form a cyano group;

R⁴ is selected from hydrogen, halogen, C₁₋₅ saturated hydrocarbyl, cyano and CF₃; and

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R⁵ is selected from hydrogen, halogen, C₁₋₅ saturated hydrocarbyl, cyano, CONH₂, CONHR⁹, CF₃, NH₂, NHCOR⁹ or NHCONHR⁹;

R⁹ is phenyl or benzyl each optionally substituted by one or more

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substituents selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, mono- or di-C₁₋₄ hydrocarbylamino; a group R^a-R^b wherein R^a is a bond, O, CO, X¹C(X²), C(X²)X¹, X¹C(X²)X¹, S, SO, SO₂, NR^c, SO₂NR^c or NR^cSO₂; and R^b is selected from hydrogen, heterocyclic groups having from 3 to 12 ring members, and a C₁₋₈ hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, carboxy, amino, mono- or di-C₁₋₄ hydrocarbylamino, carbocyclic and heterocyclic groups

having from 3 to 12 ring members and wherein one or more carbon atoms of the

C₁₋₈ hydrocarbyl group may optionally be replaced by O, S, SO, SO₂, NR^c,

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 R^c is selected from hydrogen and C_{1-4} hydrocarbyl; and X^1 is O, S or NR^c and X^2 is =O, =S or = NR^c .

 $X^{1}C(X^{2}), C(X^{2})X^{1} \text{ or } X^{1}C(X^{2})X^{1};$

20 3.

3. A compound according to claim 1 or claim 2 wherein A is a saturated hydrocarbon linker group containing from 1 to 7 carbon atoms, the linker group having a maximum chain length of 5 atoms extending between R¹ and NR²R³ and a maximum chain length of 4 atoms extending between E and NR²R³, wherein one of the carbon atoms in the linker group may optionally be replaced by an oxygen or nitrogen atom; and wherein the carbon atoms of the linker group A may optionally bear one or more substituents selected from fluorine and hydroxy, provided that the hydroxy group when present is not located at a carbon atom α with respect to the NR²R³ group; and R⁵ is selected from selected from hydrogen, halogen, C₁₋₅ saturated hydrocarbyl, cyano, CONH₂, CF₃, NH₂, NHCOR⁹ and NHCONHR⁹.

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- 4. A compound according to any one of claims 1 to 3 wherein:
 - (i) the linker group A has a maximum chain length of 3 atoms (more preferably 1 or 2 atoms, and most preferably 2 atoms) extending between R¹ and NR²R³; and/or
- 5 (ii) the linker group A has a maximum chain length of 3 atoms extending between E and NR²R³; and/or
 - (iii) the linker group A has a chain length of 2 or 3 atoms extending between R¹ and NR²R³ and a chain length of 2 or 3 atoms extending between E and NR²R³; and/or
- (iv) the linker group atom linked directly to the group E is a carbon atom and the linker group A has an all-carbon skeleton.
- A compound according to any one of claims 1 to 3 wherein the portion R¹-A-NR²R³ of the compound is represented by the formula R¹-(G)_k-(CH₂)_m-W-O_b-(CH₂)_n-(CR⁶R²)_p-NR²R³ wherein G is NH, NMe or O; W is attached to the group E and is selected from (CH₂)_j-CR²0, (CH₂)_j-N and (NH)_j-CH; b is 0 or 1, j is 0 or 1, k is 0 or 1, m is 0 or 1, n is 0, 1, 2, or 3 and p is 0 or 1; the sum of b and k is 0 or 1; the sum of j, k, m, n and p does not exceed 4; R⁶ and R⁷ are the same or different and are selected from methyl and ethyl, or CR⁶R⁷ forms a cyclopropyl group; and R²0 is selected from hydrogen, methyl, hydroxy and fluorine.
- A compound according to any one of claims 1 to 3 wherein the moiety R¹-A-NR²R³ is represented by the formula R¹-(G)_k-(CH₂)_m-X-(CH₂)_n-(CR⁶R⁷)_p-NR²R³ wherein G is NH, NMe or O; X is attached to the group E and is selected from (CH₂)_j-CH, (CH₂)_j-N and (NH)_j-CH; j is 0 or 1, k is 0 or 1, m is 0 or 1, n is 0, 1, 2, or 3 and p is 0 or 1, and the sum of j, k, m, n and p does not exceed 4; and R⁶ and R⁷ are the same or different and are selected from methyl and ethyl, or CR⁶R⁷ forms a cyclopropyl group.

- 7. A compound according to claim 6 wherein (i) k is 0, m is 0 or 1, n is 0, 1, 2 or 3 and p is 0; or (ii) k is 0, m is 0 or 1, n is 0, 1 or 2 and p is 1.
- 8. A compound according to claim 6 wherein (i) X is $(CH_2)_j$ -CH, k is 1, m is 0, n is 0, 1,2 or 3 and p is 0, or (ii) X is $(CH_2)_j$ -CH, k is 1, m is 0, n is 0, 1 or 2 and p is 1.
- A compound according to claim 6 or claim 8 wherein (i) j is 0; or (ii) j is 1; or (iii) CR^6R^7 is $C(CH_3)_2$.
 - 10. A compound according to claim 6 wherein the portion R¹-A-NR²R³ of the compound is represented by the formula R¹-X-(CH₂)_n-NR²R³ where X is attached to the group E and is a group CH, and n is 2.
- 10 11. A compound according to claim 1 or claim 2 wherein R¹-A(E)-NR²R³ is (i) a group selected from the groups A1 to A11 set out in Table 1 herein; or (ii) is selected from groups A1, A2, A3 and A10 in Table 1; or (iii) is the group A10 in Table 1.
 - 12. A compound according to any one of the preceding claims wherein:
- (a) E is an aryl or heteroaryl group such as optionally substituted phenyl, thiophene, furan, pyrimidine and pyridine groups; or
 - (b) E is a phenyl group; or
 - (c) E is a non-aromatic monocyclic group selected from cycloalkanes such as cyclohexane and cyclopentane, and nitrogen-containing rings such as piperazine and piperazone; or
 - (d) E is a monocyclic group.

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13. A compound according to any one of the preceding claims wherein the group A and the pyrazole group are attached to the group E in a *meta* or *para* relative orientation; i.e. A and the pyrazole group are not attached to adjacent ring members of the group E, for example wherein E is selected from 1,4-phenylene, 1,3-phenylene, 2,5-pyridylene and 2,4-pyridylene, 1,4-piperazinyl, and 1,4-piperazonyl.

- 14. A compound according to any one of the preceding claims wherein E is (i) unsubstituted or (ii) has up to 4 substituents (e.g. 0-3 substituents, more preferably 0-2 substituents, for example 0 or 1 substituent) R⁸ selected from hydroxy, oxo (when E is non-aromatic), chlorine, bromine, trifluoromethyl, cyano, C₁₋₄ hydrocarbyloxy and C₁₋₄ hydrocarbyl optionally substituted by C₁₋₂ alkoxy or hydroxy.
- 15. A compound according to claim 12 having the formula (II):

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$$\begin{array}{c|c}
R^{1} & R^{2} \\
\hline
 & A-N \\
 & R^{3} \\
\hline
 & R^{4} & R^{5} \\
\hline
 & N-N \\
 & H
\end{array}$$
(II)

wherein the group A is attached to the *meta* or *para* position of the benzene ring and q is 0-4 (for example wherein q is 0, 1 or 2, preferably 0 or 1 and most preferably 0); R⁸ is hydroxy; halogen (e.g. chlorine and bromine); trifluoromethyl; cyano; C₁₋₄ hydrocarbyloxy optionally substituted by C₁₋₂ alkoxy or hydroxy; and C₁₋₄ hydrocarbyl optionally substituted by C₁₋₂ alkoxy or hydroxy.

16. A compound according to claim 13 having the formula (III):

where A' is the residue of the group A and R^1 to R^5 are as defined in any one of the preceding claims.

17. A compound according to claim 15 having the formula (IV):

$$R^{1}$$
 R^{20}
 $(CH_{2})_{z}$
 R^{3}
 R^{4}
 $N-N$
 H
 (IV)

wherein z is 0, 1 or 2, R^{20} is selected from hydrogen, methyl, hydroxy and fluorine, provided that when z is 0, R^{20} is other than hydroxy.

18. A compound according to claim15 having the formula (V):

. 5

$$R^4$$
 R^5
 $N-N$
 R^5
 (V)

wherein R^3 is optionally selected from hydrogen and C_{1-4} hydrocarbyl, for example C_{1-4} alkyl such as methyl, ethyl and isopropyl, and more preferably R^3 is hydrogen.

- A compound according to any one of the preceding claims wherein R¹ is selected from phenyl, naphthyl, thienyl, furan, pyrimidine and pyridine, and preferably wherein R¹ is phenyl.
- 20. A compound according to any one of the preceding claims wherein R¹ is unsubstituted or bears one or more substituents selected from hydroxy; C1-4 10 acyloxy; fluorine; chlorine; bromine; trifluoromethyl; cyano; CONH2; nitro; C1-4 hydrocarbyloxy and C₁₋₄ hydrocarbyl each optionally substituted by C₁₋₂ alkoxy, carboxy or hydroxy; C₁₋₄ acylamino; benzoylamino; pyrrolidinocarbonyl; piperidinocarbonyl; morpholinocarbonyl; piperazinocarbonyl; five and six membered heteroaryl and heteroaryloxy groups containing one or two 15 heteroatoms selected from N, O and S; phenyl; phenyl-C1-4 alkyl; phenyl-C1-4 alkoxy; heteroaryl-C₁₋₄ alkyl; heteroaryl-C₁₋₄ alkoxy and phenoxy, wherein the heteroaryl, heteroaryloxy, phenyl, phenyl-C₁₋₄ alkyl, phenyl-C₁₋₄ alkoxy, heteroaryl-C₁₋₄ alkyl, heteroaryl-C₁₋₄ alkoxy and phenoxy groups are each optionally substituted with 1, 2 or 3 substituents selected from C₁₋₂ acyloxy, fluorine, chlorine, bromine, trifluoromethyl, cyano, CONH2, C1-2 hydrocarbyloxy 20 and C_{1-2} hydrocarbyl each optionally substituted by methoxy or hydroxy.

21. A compound according to claim 20 wherein:

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- (a) R^1 is unsubstituted or is substituted by up to 5 substituents (e.g. 0, 1, 2, 3 or 4 substituents, preferably 0, 1, 2 or 3, and more preferably 0, 1 or 2 substituents) selected from hydroxy; C_{1-4} acyloxy; fluorine; chlorine; bromine; trifluoromethyl; cyano; C_{1-4} hydrocarbyloxy and C_{1-4} hydrocarbyl optionally substituted by C_{1-2} alkoxy or hydroxy; and five membered heteroaryl groups containing one or two heteroatoms selected from N, O and S, the heteroaryl groups being optionally substituted by one or more C_{1-4} alkyl substituents; or
- (b) R^1 is unsubstituted or is substituted by up to 5 substituents (e.g. 0, 1, 2, 3 or 4 substituents, preferably 0, 1, 2 or 3, and more preferably 0, 1 or 2 substituents) selected from hydroxy, C_{1-4} acyloxy, fluorine, chlorine, bromine, trifluoromethyl, cyano, C_{1-4} hydrocarbyloxy and C_{1-4} hydrocarbyl optionally substituted by C_{1-2} alkoxy or hydroxy.
- 22. A compound according to claim 21 wherein the group R¹ has one or two substituents selected from fluorine, chlorine, trifluoromethyl, methyl and methoxy.
 - 23. A compound according to claim 22 wherein R¹ is a mono-chlorophenyl or dichlorophenyl group.
- 24. A compound according to any one of the preceding claims wherein (a) R⁴ is

 20 selected from hydrogen and methyl; and/or (b) R⁵ is selected from hydrogen,
 fluorine, chlorine, bromine, methyl, ethyl, hydroxyethyl, methoxymethyl, cyano,
 CF₃, NH₂, NHCOR^{9b} and NHCONHR^{9b} where R^{9b} is phenyl or benzyl optionally
 substituted by hydroxy, C₁₋₄ acyloxy, fluorine, chlorine, bromine, trifluoromethyl,
 cyano, C₁₋₄ hydrocarbyloxy and C₁₋₄ hydrocarbyl optionally substituted by C₁₋₂
 alkoxy or hydroxy.
 - 25. A compound according to any one of the preceding claims wherein:

- (a) R^2 and R^3 are independently selected from hydrogen, C_{14} hydrocarbyl and C_{14} acyl; or
- (b) R² and R³ are independently selected from hydrogen and methyl; or
- (c) R^2 and R^3 are both hydrogen.
- A compound according to any one of the preceding claims having a molecular weight no greater than 1000, more usually less than 750, for example less than 700, or less than 650, or less than 600, or less than 550, or less than 525, for example 500 or less.
 - 27. A compound of the formula (I) which is:
- 2-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;
 - 3-phenyl-2-[3-(1H-pyrazol-4-yl)-phenyl]-propionitrile;
 - 2-[4-(3,5-dimethyl-1H-pyrazol-4-yl)-phenyl]-2-phenyl-ethylamine;
 - 2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;
 - 2-[3-(3,5-dimethyl-1H-pyrazol-4-yl)-phenyl]-1-phenyl-ethylamine;
- 3-phenyl-2-[3-(1H-pyrazol-4-yl)-phenyl]-propylamine;
 - 3-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
 - {3-(4-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;
 - {3-(3,4-difluoro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;
 - {3-(3-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;
- 3-(4-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propionamide;
 - 3-(4-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
 - 3-(3,4-dichloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
 - 4-(4-chloro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
 - 4-(4-methoxy-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
- 4-(4-chloro-phenyl)-1-methyl-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
 - 4-phenyl-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
 - 4-[4-(3,5-dimethyl-1H-pyrazol-4-yl)-phenyl]-4-phenyl-piperidine;
 - dimethyl-{3-[4-(1H-pyrazol-4-yl)-phenyl]-3-pyridin-2-yl-propyl}-amine;
 - {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-dimethyl-amine;

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{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;
             {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine (R);
             {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine (S);
             4-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-morpholine;
 5
             4-{4-[1-(4-chloro-phenyl)-2-pyrrolidin-1-yl-ethyl]-phenyl}-1H-pyrazole;
             {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-isopropyl-amine;
             dimethyl-{2-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-amine;
             {2,2-bis-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-dimethyl-amine;
             {2,2-bis-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;
10
             2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine (R);
             2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine (S);
             2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-acetamide;
             1-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-piperazine;
             1-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-piperidine;
15
             4-{4-[2-azetidin-1-yl-1-(4-chloro-phenyl)-ethyl]-phenyl}-1H-pyrazole;
             1-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;
             2-(4-chloro-phenyl)-N-methyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-acetamide;
             N-methyl-2,2-bis-[4-(1H-pyrazol-4-yl)-phenyl]-acetamide;
             {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;
20
             {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-ethyl-amine;
             4-{4-[1-(4-chloro-phenyl)-2-imidazol-1-yl-ethyl]-phenyl}-1H-pyrazole;
             methyl-{2-(4-phenoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-amine;
             {2-(4-methoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;
             methyl-{2-[4-(pyrazin-2-yloxy)-phenyl]-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-
25
             amine;
             methyl-{2-phenoxy-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-amine;
             2-{(4-chloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methoxy}-ethylamine;
             4-{4-[1-(4-chloro-phenyl)-3-pyrrolidin-1-yl-propyl]-phenyl}-1H-pyrazole;
             4-{4-[3-azetidin-1-yl-1-(4-chloro-phenyl)-propyl]-phenyl}-1H-pyrazole;
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             methyl-{3-naphthalen-2-yl-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-amine;
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dimethyl-(4-{3-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl}-propyl}-phenyl)-
              amine;
              {3-(4-fluoro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;
              4-{4-[4-(4-chloro-phenyl)-piperidin-4-yl]-phenyl}-1H-pyrazole-3-carbonitrile;
  5
              3-(4-phenoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
              1-{(4-chloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-piperazine;
              1-methyl-4-{phenyl-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-[1,4]diazepane;
              {3-(3-chloro-phenoxy)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;
              methyl-{2-phenyl-2-[6-(1H-pyrazol-4-yl)-pyridin-3-yl]-ethyl}-amine;
 10.
             4-{4-[1-(4-chloro-phenyl)-3-imidazol-1-yl-propyl]-phenyl}-1H-pyrazole;
             4-[4-(3-imidazol-1-yl-1-phenoxy-propyl)-phenyl]-1H-pyrazole;
             4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-phenol;
             1-{(4-chloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-piperazine;
              {2-(4-fluoro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;
15
             {2-(3-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;
             4-[4-(2-methoxy-ethoxy)-phenyl]-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
             4-[4-(3-methoxy-propoxy)-phenyl]-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
             3-(3,4-dichloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propionamide;
             2-(4-{2-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-phenoxy)-
20
             isonicotinamide;
             {2-(3-chloro-phenoxy)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;
             3-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-propan-1-ol;
             2-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-ethanol;
             3-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-propan-1-ol;
25
             2-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-ethanol;
             {2-(4-chloro-phenyl)-2-[4-(1H-pyrazól-4-yl)-phenyl]-ethyl}-cyclopropylmethyl-
             amine;
             methyl-[2-[4-(1H-pyrazol-4-yl)-phenyl]-2-(4-pyridin-3-yl-phenyl)-ethyl]-amine;
             4-{3-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-phenol;
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             3-(4-methoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
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4-(4-chloro-phenyl)-4-[4-(3-methyl-1H-pyrazol-4-yl)-phenyl]-piperidine;
              2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-morpholine;
              (4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-phenoxy)-acetic acid;
              (4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-phenoxy)-acetic acid, methyl
  5
              ester;
             4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-benzonitrile;
              {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;
              1-(4-chloro-phenyl)-2-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethanol;
             2-amino-1-(4-chloro-phenyl)-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethanol;
10
             4-(3,4-dichloro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
             4-(3-chloro-4-methoxy-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
             4-(4-chloro-3-fluoro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
             4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-benzoic acid;
             4-[4-(1H-pyrazol-4-yl)-phenyl]-1,2,3,4,5,6-hexahydro-[4,4']bipyridinyl;
15
             3-(3-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
             2-methylamino-1-(4-nitro-phenyl)-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethanol;
             2-(3-chloro-4-methoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;
             2-(4-chloro-phenyl)-2-fluoro-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;
             3-(3,4-dichloro-phenyl)-3-[6-(1H-pyrazol-4-yl)-pyridin-3-yl]-propylamine;
20
             2-(4-chloro-3-fluoro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;
             4-(2-chloro-3-fluoro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
             1-{(3,4-dichloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-piperazine;
             2-(3,4-dichloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;
             {2-(3-chloro-4-methoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-
25
             amine;
             4-{4-[2-azetidin-1-yl-1-(4-chloro-phenoxy)-ethyl]-phenyl}-1H-pyrazole;
             3-(3-chloro-4-methoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
             {3-(3-chloro-4-methoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-
            amine;
             1-{(3,4-dichloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-piperazine; or
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C-(4-chloro-phenyl)-C-[4-(1H-pyrazol-4-yl)-phenyl]-methylamine; and salts, solvates, tautomers and N-oxides thereof.

- A compound according to any one of the preceding claims in the form of a salt, solvate (such as a hydrate), ester or N-oxide.
- A compound as defined in any one of claims 1 to 28 for use in medicine; for example (a) for use in the prophylaxis or treatment of a disease state or condition mediated by protein kinase B; or (b) for use in the prophylaxis or treatment of a disease state or condition mediated by protein kinase A.
 - 30. The use of a compound as defined in any one of claims 1 to 28 for:

- (a) the manufacture of a medicament for the prophylaxis or treatment of a disease state or condition mediated by protein kinase B; or
 - (b) the manufacture of a medicament for the prophylaxis or treatment of a disease state or condition mediated by protein kinase A; or
 - (c) the manufacture of a medicament for the prophylaxis or treatment of a disease state or condition arising from abnormal cell growth;
 - (d) the manufacture of a medicament for the prophylaxis or treatment of a disease in which there is a disorder of proliferation, apoptosis or differentiation.
 - A pharmaceutical composition comprising a novel compound as defined in any one of claims 1 to 28 and a pharmaceutically acceptable carrier.
- A process for the preparation of a compound of the formula (I) as defined in any one of claims 1 to 28, which process comprises:
 - (a) the reaction of a compound of the formula (X) with a compound of the formula (XI) or an N-protected derivative thereof:

wherein A, E, and R¹ to R⁵ are as defined in any one of the preceding claims, one of the groups X and Y is selected from chlorine, bromine, iodine and trifluoromethanesulphonate, and the other one of the groups X and Y is a boronate residue, for example a boronate ester or boronic acid residue, in the presence of a palladium catalyst and a base;

(b) the reductive amination of a compound of the formula (XXXVI):

with HNR²R³ in the presence of a reducing agent; and optionally

the conversion of one compound of the formula (I) into another compound of the formula (I).